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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,268	08/30/2000	Frank Filser	00-497	1826

7590

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EXAMINER

FIORILLA, CHRISTOPHER A

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 12/02/2002

16

Please find below and/or attached an Office communication concerning this application or proceeding.

72-16

**Office Action Summary**

Application No.

09/623,268

Applicant(s)

FILSER ET AL.

Examiner

Christopher A. Fiorilla

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 14 November 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 16-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 16-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other:

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1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. The amendment filed 11/14/02 has been entered and this action takes into consideration the claim changes made in that amendment.
3. Claims 16-32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 16-32 use the phrase "the achievable relative density after sintering" to define the enlargement factor,  $f$ , recited in the claims. It is submitted that the specification does not enable one skilled in the art to make or use the invention because in order to make or use the invention, one must determine the enlargement factor, which cannot be readily determined because there is no teaching as to how to determine the "achievable relative density after sintering".

4. Claims 16-31 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original specification does not provide support for the

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currently claimed limitations of "selecting a prepared block of porous ceramic material" and "processing a blank of the prepared [block of] porous ceramic material". The relationship between the claimed "block" and "blank" is unclear and the specification does not appear to provide guidance in regard to this relationship.

5. Claims 16-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 16 and 32 are indefinite in that the limitations relating to the determination of the shrinkage factor ( $f$ ) are not clearly related to the limitations of the claim. For example, claim 1 recites that  $\rho_R$  is the relative density of "a prepared blank" and later refers to "a blank of porous ceramic material" but does not define a relationship between the blanks. Further, claim 1 defines  $\rho_s$  as "the achievable relative density after sintering" and later recites "dense-sintering the design form of porous ceramic material" but does not relate the "densities".

Further, the phrase "achievable relative density after sintering" used in claims 16 and 32 is indefinite in that the metes and bounds of this phrase cannot be readily determined. The density after sintering depends on many factors not specifically recited in the claims (e.g. ceramic composition, particle size, sintering temperature, sintering time, sintering pressure).

Claims ~~1 and~~ <sup>and 32</sup> 16 are indefinite in that they appear to recite that the enlargement factor is determined independently of the blank of porous ceramic material. This is contradictory to the

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specification which recites that an individual enlargement factor for each blank is determined even if they are made from the same material (see e.g. page 8, third paragraph).

6. Applicant's arguments filed 11/14/02 have been fully considered but they are not persuasive.

With respect to applicants' arguments it is submitted that the 112/second paragraph rejections of the claims have not been overcome.

The relationships between the various "blanks" and "densities" recited in claims 16 and 32 have not been established in the claims.

Further, it is maintained that the phrase "achievable relative density" is indefinite. Applicants state on page 6 of the remarks filed with the amendment after final that the phrase "achievable relative density" is not indefinite and further state "Clearly the achievable relative density is that density which is obtainable under chosen sintering parameters for particular ceramic composition." and "Clearly the achievable relative density would be different for different materials processed under different parameters; but, one can determine the achievable relative density for a particular material produced under particular parameters." This is directly contradictory to the specification which recites on page 8, lines 15-18 "Even if the blanks are made from one and the same material and are produced on the same production equipment with the same process, the enlargement factor  $f$  is not constant".

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Fiorilla whose telephone number is 703-308-0674. The examiner can normally be reached on M-F, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

A handwritten signature in black ink, appearing to read 'Ca Fiorilla', with a stylized flourish at the end.

**Christopher A. Fiorilla**  
**Primary Examiner**  
**Art Unit 1731**

caf  
November 21, 2002